

CORE-STORAGE PROGRAM, 1991

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INTRODUCTION

In 1978, the Newfoundland Department of Mines and Energy began a program of drill-core collection and storage. Initially, three core-storage libraries, having a combined capacity of 260,000 m of core samples, were established at Pasadena, St. John's, and Goose Bay. Funding for construction of these libraries was provided under the Canada-Newfoundland Mineral Development Subsidiary Agreement (1977-82) and construction was completed in 1982.

Since 1982, three additional core-storage libraries have been established at Springdale, Buchans and Baie Verte (Figure 1) increasing the combined core-storage capacity to a total of 785,000 m for all six core libraries. The core-storage libraries are operated by the Mineral Resource Management Branch of the Department of Mines and Energy and as of November 1991, housed a combined collection of approximately 715,891 m of cores (Figure 1).

DRILL-CORE ACQUISITION

The first several years of the core-collection program were devoted to identifying and collecting core samples from abandoned drilling sites. Collection of core samples from abandoned sites was completed in insular Newfoundland in 1981 and in Labrador in 1983, with an overall recovery rate of approximately 50 percent of core drilled. Core samples from this source form most of the present collection. All core samples from these sites have been catalogued and are available for inspection by the mineral-exploration industry or other interested persons.

New core acquisition by the core-storage program generally falls into one of the following categories:

- (a) Core samples collected from recently abandoned mineral-exploration sites.
- (b) Core samples donated to the program by mining and mineral-exploration companies.

Generally, complete drillhole sections are collected and where cores are accessible by road, all available samples are retrieved. In remote bush locations, complete drillhole sections are collected but only from representative drillholes (Plate 2).

1991 CORE COLLECTION

During 1991, drill-core acquisition continued in insular Newfoundland. The core-storage program acquired 24,164 m of core samples during this past year (Table 1).

Drill-core collection is continuing this fall and it is anticipated that a further 51,000 m of core samples will be delivered to our core-storage facilities by mineral-exploration companies this year. These core samples will be catalogued during the 1992 field season and made available for inspection at that time.

A catalogue of all open-core samples in Department core libraries is available from the Publications and Information Section, Geological Survey Branch of the Department of Mines and Energy.

USING THE CORE LIBRARIES

Any person who wishes to visit any of the core libraries for the purpose of examining core samples should provide advance notice to the person in charge of the particular core library. The Pasadena core library is staffed on a full-time basis by one employee and is open to the public during regular government office hours. Advance notice of one day is required in order to properly accommodate visitors to the Pasadena core library. Visitors to the St. John's core library should also provide advance notice of one day and advance notice of one week is required to properly accommodate visitors to the Goose Bay core library (Plate 3) because it is not staffed on a full-time basis. Visits to the Springdale, Buchans and Baie Verte core libraries require a minimum notice of two days.

The indexing system in all three core libraries is based on the National Topographic System (NTS). Core samples from each drillhole are assigned a unique master number based on the 1:50 000-scale topographic sheet on which the drillhole collar is located. A manual index card-file forms the basis of this system in conjunction with a 1:50 000-scale drillhole location map file, which shows the location of all drillholes. A completed example of the index card is shown in Appendix I. Each core library also contains a file of all available data, i.e., drillhole logs, cross-sections, and assay results for all core samples stored. The company drillhole number and the assessment file in which the drilling was reported are referenced on the index card. The manual index card-file and the map index are supplemented by a

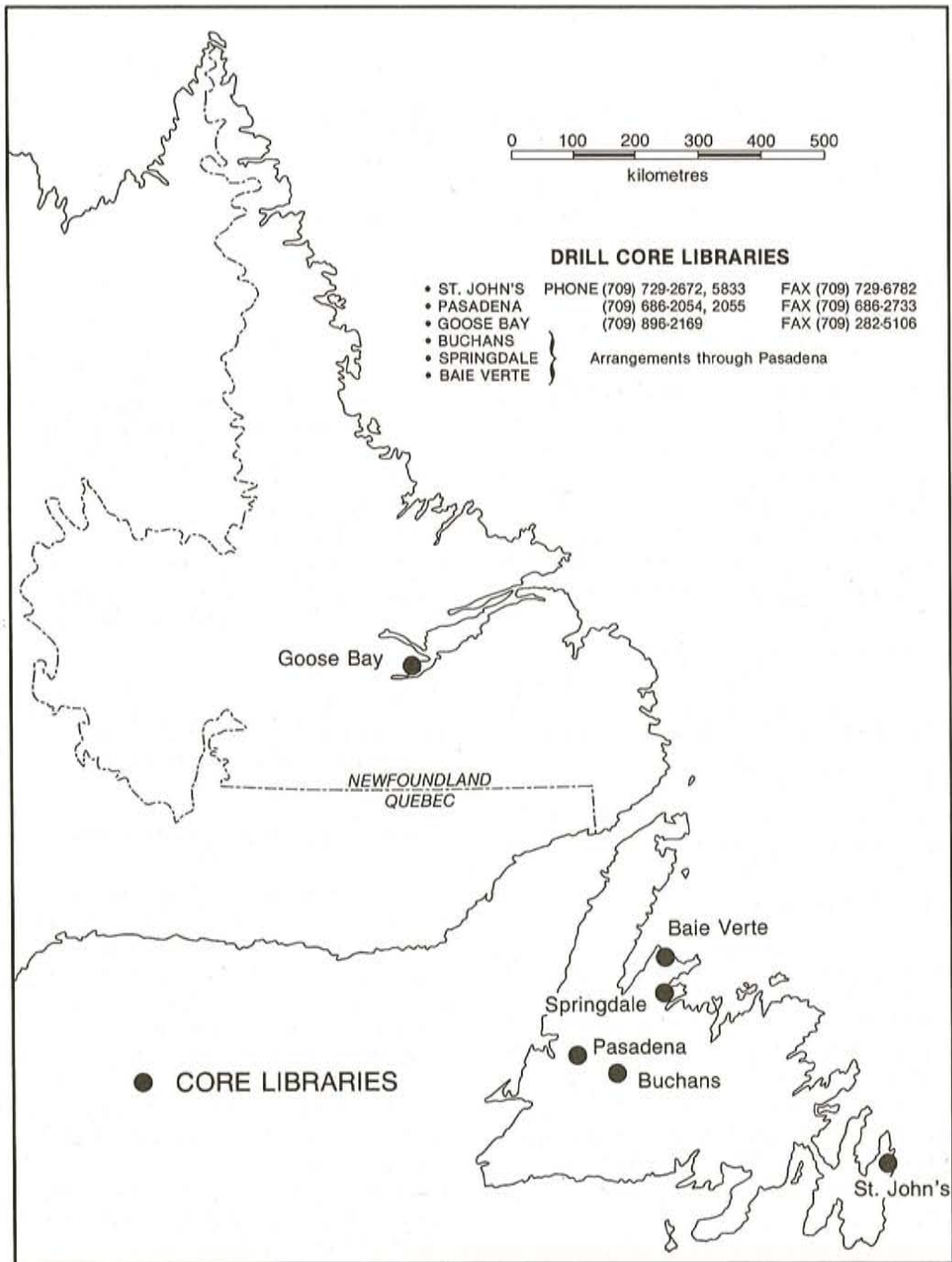


Figure 1. Core libraries in Newfoundland and Labrador.

computerized drillhole index, which contains all of the information on the previous two indexes. The computer drillhole index-file functions as a permanent master-file, from which catalogues of all of our drill-core holdings are updated yearly and printed for distribution at the Department's Annual Review of Activities each November. The file is resident on microcomputers in the Department's St. John's office and in the Pasadena core library, where it is available for production of customized indexes.

All six core libraries have core examination areas that contain or share, with other core libraries, rock-cutting

equipment, a core splitter, a stereomicroscope, a magnetic susceptibility meter, a resistivity meter, an ultraviolet light and a McPhar TV-1 scintillometer.

Sampling is generally permitted where doing so does not destroy any lithological sequence or leave gaps in the drillhole record. The smallest size sample that is useful is taken and the minimum amount of core that must be left in each core box is a one-quarter-size split of the original core. The user must complete a 'Request To Sample Form' (Appendix II) before sampling is permitted. All core samples, pulps, powders, thin sections, and any other materials generated

Table 1. Core collected in 1991.

Property	Company/Year	No. Holes	Metres
Betts Cove	(Inco) 1988-90	35	4,860
Baie Verte	(Corona) 1988-90	97	11,224
Bobby's Pond	(Inco) 1991	2	1,237
Avalon Peninsula	(Inco) 1990	2	346
Hickey's Pond	(Corona) 1990	4	420
Burlington Road	(Terra Gold) 1989	2	275
Jackson's Arm	(Carrick Resources) 1990	17	1,336
Cape Ray	(Dolphin Exploration) 1989	29	3,616
Goose Arm	(Len Pye) 1990-91	4	122
Wellsdale Fee Simple	(Wellsdale Mnrls) 1979	18	728

**Plate 1.** Pasadena core library.**Plate 2.** Core collection from remote bush location.

from the core samples must be returned (along with a copy of the results of any work done on the samples) to the core library within one year from the date the samples were taken. The user shall be responsible for costs incurred in returning samples to the core library.

There are no fees charged for the services provided by the core-storage program, however, patrons making extensive use of the trim saws to sample drill core are required to supply their own blades or replace the blades that are used.

**Plate 3.** Goose Bay core library.

The core-storage program does not have a practice for core reduction or discarding of 'redundant' core.

FURTHER INFORMATION

Potential users of the core-storage program should contact the people listed below to arrange visits to the core libraries and to obtain information on the core-storage program.

Project Geologist—Core-Storage Unit (Alvin Harris)
 Department of Mines and Energy
 P.O. Box 8700
 St. John's, Newfoundland
 A1C 5T7
 PHONE: (709) 729-5833
 FAX: (709) 729-6782

Core-Storage Geologist (Pasadena) (Stewart Cochrane)
 Department of Mines Energy
 Dr. A.K. Snelgrove Core Library
 Pasadena, Newfoundland
 A0L 1K0
 PHONE: (709) 686-2054, 2055
 FAX: (709) 686-2733

APPENDIX I

MASTER NO.: 1L/13 0007 UTM: 584100 5204900 21
 COMPANY: Nfld. Dept. of Mines & Energy CO. NO.: F-7 DRILLING DATE: 66-12-19
 MIN NO.: _____ PROPERTY: Fortune STATUS: _____
 DATE STORED: 82-02-25 LOG AVAIL: Yes ASSAYS AVAIL: Yes MDD NO.: 1M/4 (87)

CORE STORAGE INDEX CARD

INTERVAL (m)	BOXES	CORE	RACK LOCATION		MISSING INTERVALS (m)	CORE EXAMINATION FREQUENCY											
			FROM	TO		81	82	83	84	85	86	87	88	89			
0-48.76	6	AX	01B04A09	01B04B02	34.13-38.10												
55.77-89.30	4	EX	01B04B03	01B04B06	48.76-55.77												
E.O.H.						90	91	92	93	94	95	96	97	98			

APPENDIX II
CORE STORAGE UNIT
Request to Sample Core

USER NAME: _____

COMPANY/AFFILIATION: _____

ADDRESS: _____

NATURE OF PROJECT: _____

WORK TO BE CONDUCTED

ON SAMPLES: _____

DRILL HOLE NOS: _____

SAMPLE INTERVALS: _____

SIZE AND SHAPE OF SAMPLES: _____

REQUEST DENIED/GRANTED (REASON): _____

DATE _____ CORE STORAGE GEOLOGIST _____

NOTE: All core samples and/or pulps, powders and thin sections, etc., generated from core samples are to be returned to core library at the end of a previously specified period. A copy of all assays and other analytical work conducted on the samples is also required at the end of this period.

RETURN DATE: _____ SIGNATURE: _____